

Amendments to the Claims:

1 (canceled)

2 (currently amended): The ~~extract of claim 1~~ composition of claim 36 wherein the high molecular weight ~~polysaccharide~~ polysaccharides and polysaccharide complexes are about 5×10^5 Da to about 5×10^6 Da.

3 (canceled)

4 (canceled)

5 (currently amended): The ~~extract of claim 1~~ composition of claim 36 wherein the high molecular weight ~~polysaccharide~~ polysaccharides and polysaccharide complexes contain glucose and at least one monosaccharide selected from the group consisting of: galactose, rhamnose, mannose and arabinose.

6 (currently amended): The ~~extract~~ composition of claim 5 wherein the high molecular weight ~~polysaccharide~~ polysaccharides and polysaccharide complexes are substantially free of ribose.

7 (currently amended): The ~~extract of claim 1~~ composition of claim 36 which is substantially free of nucleic acids and ribonucleic acids.

8 (currently amended): The ~~extract~~ composition of claim 5 wherein the high molecular weight ~~polysaccharide~~ polysaccharides and polysaccharide complexes also contain N-acetyl glucosamine and N-acetyl galactosamine.

9 (currently amended): The ~~extract of claim 1~~ composition of claim 36 which is substantially free of unassociated proteins.

10 (currently amended): ~~An extract~~ A composition consisting of high molecular weight *Chlorella* ~~polysaccharide~~ polysaccharides and polysaccharide complexes, wherein the high molecular weight polysaccharide and polysaccharide complexes are about 1×10^5 Da to about 1×10^7 Da.

11 (currently amended): The ~~extract~~ composition of claim 10 wherein the high molecular weight ~~polysaccharide~~ polysaccharides and polysaccharide complexes are about 1×10^6 Da to about 5×10^6 Da.

12 (currently amended): The ~~extract of claim 1~~ composition of claim 36 which retains immunomodulating activity upon treatment under conditions and for a length of time sufficient to effect digestion of unassociated DNA.

13 (currently amended): The ~~extract of claim 1~~ composition of claim 36 which retains immunomodulating activity upon treatment under conditions and for a length of time sufficient to effect digestion of unassociated RNA.

14 (currently amended): The ~~extract of claim 1~~ composition of claim 36 which retains immunomodulating activity upon treatment under conditions and for a length of time sufficient to effect digestion of unassociated proteins.

15 (currently amended): The ~~extract of claim 1~~ composition of claim 36 which retains immunomodulating activity upon treatment under conditions and for a length of time sufficient to effect cleavage of glycosidic linkages with at least one glycosidase selected from the group consisting of: amylase, amyloglucosidase, cellulase and neuraminidase.

16 (currently amended): The ~~extract of claim 1~~ composition of claim 36 which retains immunomodulating activity upon treatment under conditions and for a length of time sufficient to effect cleavage of:

- (i) three or more α -1,4-linked D-glucose units;
- (ii) α -1,4-linked glucosides;
- (iii) α -1,4-linked galactosides; or
- (iv) α -1,4-linked D-glucose.

17 (currently amended): The ~~extract~~ composition of claim 14 wherein the treatment is digestion with protease.

18 (currently amended): The ~~extract of claim 1~~ composition of claim 36 wherein the high molecular weight *Chlorella* ~~polysaccharide~~ polysaccharides and polysaccharide complexes are from *Chlorella pyrenoidosa*.

19 (currently amended): A pharmaceutical composition comprising the ~~extract of claim 1~~ composition of claim 36, in admixture with a pharmaceutically acceptable diluent or carrier.

20 (currently amended): A nutritional composition comprising the ~~extract of claim 1~~ composition of claim 36, and at least one energy source selected from the group consisting of carbohydrate, fat and nitrogen sources.

21 (currently amended): A nutritional supplement comprising the ~~extract of claim 1~~ composition of claim 36 and a conventional supplement selected from the group consisting of: vitamin E, vitamin C and folic acid.

22 (currently amended): A nutritional supplement comprising the ~~extract of claim 1~~ composition of claim 36 and a nutraceutical selected from the group consisting of: fish oils, spirulina and echinacea.

23 (currently amended): A commercial package containing as an active ingredient the ~~extract of claim 1~~ composition of claim 36, together with instructions for its use as an immunomodulator.

Claims 24-35 (cancelled)

36 (new): A composition comprising high molecular weight polysaccharides and polysaccharide complexes from *Chlorella*;

wherein the high molecular weight polysaccharides and polysaccharide complexes are present in the composition at a greater percentage than in a crude *Chlorella* extract;

wherein the percentage of high molecular weight polysaccharides and polysaccharide complexes in the composition is calculated as a proportion (w/w) of the total polysaccharides and polysaccharide complexes in the composition;

wherein the percentage of high molecular weight polysaccharides and polysaccharide complexes in the crude *Chlorella* extract is calculated as a proportion (w/w) of the total polysaccharides and polysaccharide complexes in the crude *Chlorella* extract;

wherein the high molecular weight polysaccharides and polysaccharide complexes are about 3×10^5 Da to about 1×10^7 Da; and

wherein the crude extract is obtained by a process consisting of the following steps:

- (a) treating *Chlorella* cells with aqueous media for 1 h at 80°C;
- (b) subjecting the treated *Chlorella* cells to centrifugation with a relative centrifugal force of 10,000 g for 20 minutes to remove residual cells and cell debris; and
- (c) micro-filtering the supernatant obtained from step (b).

37 (new) The composition of claim 36 wherein the high molecular weight polysaccharides and polysaccharide complexes are about 5×10^5 Da to about 1×10^6 Da.

38 (new): The composition of claim 36 wherein the high molecular weight polysaccharides and polysaccharide complexes are about 1×10^6 Da to about 5×10^6 Da.

39 (new): The composition of claim 36 wherein the high molecular weight polysaccharides and polysaccharide complexes are about 5×10^6 Da to about 7×10^6 Da.

40 (new): The composition of claim 36 wherein the high molecular weight polysaccharides and polysaccharide complexes are about 7×10^6 Da to about 9×10^6 Da.

41 (new): The composition of claim 36 wherein the high molecular weight polysaccharides and polysaccharide complexes are about 9×10^6 Da to about 1×10^7 Da.

42 (new): The composition of claim 36 wherein the composition is substantially free of *Chlorella* polysaccharides and polysaccharide complexes of less than about 1×10^5 Da.